



# Handwear Computer Input Device (HCID)

The HCID is a rugged, **sensor-embedded glove** designed to be a convenient interface to a Soldier's electronic devices (computer, 2-way radio, etc). The HCID glove provides advanced input capabilities including critical functions currently provided by the Land Warrior Soldier Control Unit (SCU) and Weapons User-Interface Device (WUID).

## Description:

The HCID is capable of recognizing intuitive single-handed gesture commands and direct "hands-on-weapon" input actions, both of which are relayed to the interfaced electronic device. Gesture commands are recognized through a suite of sensors that sense hand posture and orientation, while hands-on-weapon input actions are detected by force sensors strategically placed throughout the glove. These sensors and their supporting conduction network are fully integrated into the HCID's fabric to maintain the look-and-feel of a conventional Soldier glove, even machine washable.

## Benefits:

- Both Hands remaining on weapon
- Mouse and robotic control
- Choice hand input position (w/out need for additional weapon attachments)
- Lightweight, self-contained, and non-interfering
- Tactical gesture-based command input. Recognizes hand-arm gestures for intuitive multipurpose input and directional referencing.
- Cursor/map manipulation and menu selection

## Specifications:

- **Active/Standby Power:** 360mW and <30mW
- **Mass Added:** 220g (electronics, enclosure, and interconnect)
- **Volume Added:** 18 cm<sup>3</sup> (enclosure)
- **Sensors:** 5 Finger Bend Sensors, 3-axis Hand Orientation Sensor
- Flexible Mouse Device and Multifunctional Control Buttons

## Status:

The Handwear Computer Input Device is being developed by RallyPoint, Inc. under a Natick Small Business Innovative Research (SBIR) Program as part of an ongoing effort to introduce important Soldier warfighting capabilities without adding significant bulk and weight. A fully integrated and functional prototype is expected in December 2007.

## Point of Contact:

### Individual Protection Liaison

COMM: (508) 233-6481, DSN: 256-6481

E-Mail: amsrd-nsc-ad-b@natick.army.mil



**NATICK  
SOLDIER  
CENTER**

Kansas St.  
Natick, MA  
01760  
nsc.natick.army.mil

rev 6-20-05  
PAO 05-126